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10/655,717	09/05/2003	Peiguang Zhou	KCC-19188	8792

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EXAMINER
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KRUER, KEVIN R

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1773

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/655,717  
Filing Date: September 05, 2003  
Appellant(s): ZHOU, PEIGUANG

**MAILED**  
**JUL 13 2007**  
**GROUP 1701**

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Maxwell J. Petersen  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed February 20, 2007 appealing from the Office action mailed June 13, 2006.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

WO02/053668	ZHOU et al	07-2002
4,857,594	LAKSHMANAN et al	08-1989

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

1. Claims 18-22, 24-35, 44-48, and 52-65 stand rejected under 35 U.S.C. 103(a) as being unpatentable over WO 02/053668 (herein referred to as Zhou) in view of Lakshmanan et al (US 4,857,594).

Zhou teaches a laminate structure comprising a first and second facing layers and an adhesive comprising selected ratios of crystalline and atactic polyolefin (abstract). The atactic polymer has a degree of crystallinity of below 20% (page 4, lines 24+), a molecular weight to 1,000-3,0000 (page 4, lines 25+), and comprises 50-90wt% of the composition. The crystalline polymer has a crystallinity of 40% or greater (page 6, lines 1+), a molecular weight of 3,000-200,000, and comprises 5-50wt% of the composition (page 6, lines 9+). The composition may further comprise up to 50% tackifier, anti-oxidizing agent, pigment, fillers, compatibilizer, and the like (page 23, lines 8+). The first and second layers may comprise non-woven materials. Alternatively, the two substrates may comprise a single sheet (page 7) or elastomeric (periodic or non-

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periodic) polymer strands (example 6). Said laminate may comprise a personal care garment such as a diaper or other absorbent structure taught in the prior art (page 23, lines 28+ and top of page 21). The laminate preferably has a static peel failure time of at least 8 hours (claim 26), an open time up to 1 second (claim 38), and a relative accretion value of less than 0.2 (claim 30).

Zhou teaches all the claim limitations with the exception of the addition of an elastomeric base polymer to the adhesive. However, Lakshmanan teaches the addition of a selectively hydrogenated block copolymer to an amorphous polyolefin adhesive (abstract) in order to improve its adhesion to polyolefin substrates (col 1, lines 48+). The block copolymer may comprise SEBS or SIS (col 3, lines 59+). The styrene content is 5-50wt% (col 4, lines 13+). Said elastomer is added in amounts of 5-20wt% based upon 100wt% of an amorphous polypropylene/elastomer/tackifier mixture (see Table 1). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a polyolefin/elastomer/tackifier blend comprising 30-90wt% amorphous polyolefin and 5-20wt% elastomer in place of the amorphous component taught in Zhou. The motivation for doing so would have been to improve the composition's adhesion to polyolefin substrates.

The examiner notes the claimed 180°C static peel strength and dynamic peel strength are understood to be latent properties of the laminate structure rendered obvious by the prior art. Furthermore, the examiner notes the adhesive of Zhou meets said limitations (see examples).

**(10) Response to Argument**

Appellant argues Zhou does not teach or suggest that the adhesive is stretchable and does not teach or suggests the inclusion of an elastomeric base polymer. The examiner agrees Zhou does not teach the inclusion of an elastomeric base polymer. In order to rectify said deficiency, Zhou has been combined with the teachings of Lakshmanan. Lakshmanan motivates the skilled artisan to add a selectively hydrogenated block copolymer to an amorphous polyolefin adhesive (abstract) in order to improve its adhesion to polyolefin substrates. While the motivation for said modification is different than appellant's, the skilled artisan would have realized the addition of the elastomeric polymer of Lakshmanan would necessarily result in an adhesive composition with improved stretch.

Appellant further argues Zhou does not disclose an adhesive composition exhibiting both a 180° static peel strength of at least 6 hours and a dynamic peel strength after 85% stretch of at least about 2000grams per 2-inch width. Specifically, applicant argues that while the dynamic peel strengths disclosed in Zhou read on the claimed dynamic peel strength values, the values disclosed in Zhou were measured without first stretching the laminate. The examiner concedes Zhou does not stretch the laminate before measuring its dynamic peel strength. But the skilled artisan would have expected the adhesive to become elastic after the addition of an elastomeric component. Furthermore, Lakshmanan teaches the skilled artisan also would have expected an increase in peel strength as a result of the addition of the elastomer taught therein. Thus, the examiner maintains the position that said property is a latent property

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of the laminate structure rendered obvious by the prior art and that one of ordinary skill in the art would have expected the claimed adhesive to exhibit said properties based upon the teachings of the prior art.

According to Appellant, Zhou teaches away from adding an elastomer or other conventional components to the adhesive taught therein because the reference teaches the adhesive "generally performs better and costs less than conventional hot melts (page 3 lines 4-5)." Appellant further argues Zhou teaches no advantage is seen when other additives are included in the blend. Said argument is noted but is not persuasive. Zhou does not have to teach an advantage is expected when block copolymers are added to the composition. Rather, the prior art as a whole must demonstrate that one of ordinary skill in the art at the time the invention was made would have reasonably expected benefits from adding the block copolymers to the adhesive taught in Zhou. The examiner maintains the position that the skilled artisan, given the teachings of Zhou and Lakshmanan, would have expected a synergistic effect when adding the hydrogenated SEBS or SIS block copolymers to the composition of Zhou. Specifically, Lakshmanan teaches adding such block copolymers to polyolefin adhesives improves adhesion to polyolefin substrates (col 1, lines 48+). Thus, the examiner maintains the position that the prior art as a whole would have motivated one of ordinary skill in the art to combine the block copolymer taught in Lakshmanan to the polyolefin adhesive of Zhou.

Appellant further argues a tackifier is an essential ingredient of the composition taught in Lakshmanan. Said argument is noted, but tackifiers are not excluded from the

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presently claimed composition. Thus, said argument fails to render the claims non-obvious. Appellant argues the skilled artisan would have been dissuaded from adding the tackifier to the composition taught in Zhou because Zhou discourages the use of ingredients other than atactic and isotactic polymer. The examiner respectfully disagrees with applicant's reading of the reference. Zhou teaches tackifier may be added to the composition (page 23, lines 8+).

For the reasons noted above, the rejections are maintained

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "K-R Kruer".

Kevin R. Kruer, Patent Examiner-Art Unit 1773



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